

SSSSSSSSSSSS	YYY	YYY	SSSSSSSSSSSS	LLL	000000000	AAAAAAA		
SSSSSSSSSSSS	YYY	YYY	SSSSSSSSSSSS	LLL	000000000	AAAAAAA		
SSSSSSSSSSSS	YYY	YYY	SSSSSSSSSSSS	LLL	000000000	AAAAAAA		
SSS	YYY	YYY	SSS	LLL	000	000	AAA	AAA
SSS	YYY	YYY	SSS	LLL	000	000	AAA	AAA
SSS	YYY	YYY	SSS	LLL	000	000	AAA	AAA
SSS	YYY	YYY	SSS	LLL	000	000	AAA	AAA
SSS	YYY	YYY	SSS	LLL	000	000	AAA	AAA
SSS	YYY	YYY	SSS	LLL	000	000	AAA	AAA
SSS	YYY	YYY	SSS	LLL	000	000	AAA	AAA
SSSSSSSSSS	YYY	SSSSSSSSSS	LLL	000	000	AAA	AAA	
SSSSSSSSSS	YYY	SSSSSSSSSS	LLL	000	000	AAA	AAA	
SSSSSSSSSS	YYY	SSSSSSSSSS	LLL	000	000	AAA	AAA	
SSS	YYY	SSS	LLL	000	000	AAA	AAA	
SSS	YYY	SSS	LLL	000	000	AAA	AAA	
SSS	YYY	SSS	LLL	000	000	AAA	AAA	
SSS	YYY	SSS	LLL	000	000	AAA	AAA	
SSS	YYY	SSS	LLL	000	000	AAA	AAA	
SSS	YYY	SSS	LLL	000	000	AAA	AAA	
SSS	YYY	SSS	LLL	000	000	AAA	AAA	
SSS	YYY	SSS	LLL	000	000	AAA	AAA	
SSS	YYY	SSS	LLL	000	000	AAA	AAA	
SSSSSSSSSS	YYY	SSSSSSSSSS	LLL	000	000	AAA	AAA	
SSSSSSSSSS	YYY	SSSSSSSSSS	LLL	000	000	AAA	AAA	
SSSSSSSSSS	YYY	SSSSSSSSSS	LLL	000	000	AAA	AAA	

CL
VO

CCCCCCCC	LL	UU	UU	MM	MM	EEEEEEEEE	SSSSSSSS	SSSSSSSS	AAAAAA	GGGGGGGG
CCCCCCCC	LL	UU	UU	MM	MM	EEEEEEEEE	SSSSSSSS	SSSSSSSS	AAAAAA	GGGGGGGG
CC	LL	UU	UU	MM	MM	EE	SS	SS	AA	GG
CC	LL	UU	UU	MM	MM	EE	SS	SS	AA	GG
CC	LL	UU	UU	MM	MM	EE	SS	SS	AA	GG
CC	LL	UU	UU	MM	MM	EE	SS	SS	AA	GG
CC	LL	UU	UU	MM	MM	EE	SSSSSS	SSSSSS	AA	GG
CC	LL	UU	UU	MM	MM	EE	SSSSSS	SSSSSS	AA	GG
CC	LL	UU	UU	MM	MM	EE	SS	SS	AAAAAAA	GG
CC	LL	UU	UU	MM	MM	EE	SS	SS	AAAAAAA	GG
CC	LL	UU	UU	MM	MM	EE	SS	SS	AA	GG
CC	LL	UU	UU	MM	MM	EE	SS	SS	AA	GG
CCCCCCCC	LLLLLLLL	UUUUUUUUUU	MM	MM	EEEEEEEEE	SSSSSSSS	SSSSSSSS	AA	GGGGGG
CCCCCCCC	LLLLL!LLL	UUUUUUUUUJ	MM	MM	EEEEEEEEE	SSSSSSSS	SSSSSSSS	AA	GGGGGG

LL		SSSSSSSS
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LLLLLLLL		SSSSSSSS
LLLLLLLL		SSSSSSSS

(2) 62
(3) 192
(4) 321

DECLARATIONS

CNX\$CONFIG_CHANGE - Log configuration change
SEND_JBCMSG - Send message to Job Controller

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0000 2 .IDENT 'V04-000'
0000 3 .*****
0000 4 .*****
0000 5 .*
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0000 23 .*
0000 24 .*
0000 25 .*****
0000 26 .*
0000 27 .*
0000 28 .**
0000 29 .* FACILITY: EXECUTIVE, CLUSTER MANAGEMENT
0000 30 .*
0000 31 .* ABSTRACT:
0000 32 .* This module produces operator and console messages when the status
0000 33 .* of the cluster changes. A primitive version of the code was
0000 34 .* carved out of the CNXMAN.MAR module.
0000 35 .*
0000 36 .* ENVIRONMENT: VAX/VMS
0000 37 .*
0000 38 .* AUTHOR: David W. Thiel CREATION DATE: 30-Aug-1983
0000 39 .*
0000 40 .* MODIFIED BY:
0000 41 .*
0000 42 .* V03-004 WMC0001 Wayne Cardoza 17-Jul-1984
0000 43 .* Add a quorum disk writelocked error.
0000 44 .*
0000 45 .* V03-003 DWT0214 David W. Thiel 09-Apr-1984
0000 46 .* Add and delete some messages. Change defaults.
0000 47 .*
0000 48 .* V03-002 DWT0198 David W. Thiel 23-Mar-1983
0000 49 .* Add messages for quorum adjustment.
0000 50 .*
0000 51 .* V03-001 DWT0131 David W. Thiel 23-Sep-1983
0000 52 .* Remove debugging tool that forces all messages to be
0000 53 .* broadcast to OPA0. Stop outputting messages about
0000 54 .* sending or receiving status and when CSB is deleted.
0000 55 .* Use correct length instruction to fill in
0000 56 .* CLUMBX\$B DS VERSION field. Add MEMREQ_MSG message
0000 57 .* to complement REQJOIN_MSG message.

CLUMESSAG
V04-000

- Cluster Event Message Routines

0 6

16-SEP-1984 00:23:47 VAX/VMS Macro V04-00
5-SEP-1984 04:06:59 [SYSLOA.SRC]CLUMESSAG.MAR;1 Page 2
(1)

0000 58 ;--
0000 59 ;--
0000 60 ;--

CL
SY
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0000 62 .SBTTL DECLARATIONS
0000 63 : INCLUDE FILES:
0000 64 : SCLUBDEF : [CLUster Block offsets
0000 65 : SCLUMBXDEF : Cluster mailbox message format
0000 66 : SCSBDEF : CSB Offsets
0000 67 : SIPLDEF : IPL definitions
0000 68 : SMSGDEF : Mailbox message type codes
0000 69 : SSBDEF : SB Offsets
0000 70
0000 71
0000 72
0000 73 : MACROS:
0000 74 : MACRO CNX_MSG MSGCODE,BRDFLG,LCLFLG,CLSFLG,TEXT
0000 75 : SHOW BINARY
0000 76 : .IF NOT_BLANK MSGCODE
0000 77 : .WORD CLUMBX$K_`MSGCODE
0000 78 : .IF FALSE
0000 79 : .WORD 0
0000 80 : .ENDC
0000 81 : .WORD 0
0000 82 : .SSSXX= FLG_M_ERROR
0000 83 : .IRP X,BRDFLG
0000 84 : .SSSXX= $SSXX ! FLG_M_`X
0000 85 : .ENDR
0000 86 : .BYTE $SSXX
0000 87 : .SSSXX= 0
0000 88 : .IRP X,CLSFLG
0000 89 : .SSSXX= $SSXX ! FLG_M_`X
0000 90 : .ENDR
0000 91 : .BYTE $SSXX
0000 92 : .SSSYY= 0 : Cluster-wide OPCOM broadcast flag
0000 93 : .IRP X,LCLFLG
0000 94 : .SSSYY= $SSYY ! FLG_M_`X
0000 95 : .ENDR
0000 96 : .BYTE $SSYY ! $SSXX : OPCOM message flags
0000 97 : .ASCIC @TEXT@  
0000 98 : .NOSHOW BINARY
0000 99 : .ENDM CNX_MSG
0000 100
0000 101
0000 102 : EQUATED SYMBOLS:
0000 103 : EQUATED SYMBOLS:
0000 104 :
0000 105 :
00000000 106 MB_W_CODE= 0 : Mailbox message code
00000002 107 MB_B_BRD= 2 : OPA0 broadcast flags byte
00000003 108 MB_B_CLS= 3 : OPCOM cluster message flags byte
00000004 109 MB_B_LCL= 4 : OPCOM local message flags byte
00000005 110 MB_T_MSG= 5 : OPA0 broadcast message text
00000001 111
00000002 112 FLG_V_NONMEMBER= 1 : Do if local node is not a VAXcluster membe
00000002 113 FLG_M_NONMEMBER= 1@FLG_V_NONMEMBER
00000002 114 FLG_V_QUORUM= 2 : Do if local cluster has a dynamic quorum
00000004 115 FLG_M_QUORUM= 1@FLG_V_QUORUM
00000003 116 FLG_V_NOQUORUM= 3 : Do if local cluster does not have a dynami
00000008 117 FLG_M_NOQUORUM= 1@FLG_V_NOQUORUM
00000004 118 FLG_V_ERROR= 4 : Do after failing to put message in OPCOM m

```

20 20 2C 4E 41 4D 58 4E 43 25 0A 07
0000000C20 64 65 72 65 76 6F 63 73 69 44 00
6D 65 74 73 79 7364 65 68 73 69 6C 62 61 74 73 45 00
20 6E 6F 69 74 63 65 6E 6E 6F 63 20
6D 65 74 73 79 73 20 6F 7473 69 6C 62 61 74 73 65 2D 65 52 00
69 74 63 55 6E 6E 6F 63 20 64 65 68
6D 65 74 73 79 73 20 6F 74 20 6E 6F

```

00000010 0000 119 FLG_M_ERROR= 10FLG_V_ERROR
0000000E 0000 120 FLG_M_ALWAYS= FLG_M_NONMEMBER ! FLG_M_QUORUM ! FLG_M_NOQUORUM
0000000C 0000 121 FLG_M_MEMBER= FLG_M_QUORUM ! FLG_M_NOQUORUM
00000007 0000 122 BELL = 7 : ASCII code for bell
0000000D 0000 124 CR = ^XD : ASCII code for carriage return
0000000A 0000 125 LF = ^XA : ASCII code for line feed
00000000 0000 126
00000000 0000 127 ; OWN STORAGE:
00000000 0000 128
00000000 0000 129
00000000 0000 130 .PSECT $SS060, LONG ; R/O Data PSECT
00000000 0000 131
00000000 0000 132
00000000 0000 133 ; Common message prefix
00000000 0000 134
00000000 0000 135
00000000 0000 136 PREFIX: ASCII < BELL > < LF > "%CNXMAN, " ; Text to prefix each message
00000000 0000 137 PREFIX_SIZ= .PREFIX ; Length of prefix text
00000000 0000 138
00000000 0000 139 ; Message control blocks
00000000 0000 140
00000000 0000 141
00000000 0000 142
0001 000C 143 CSB_MSG:: CNX_MSG_ST_NEWSYS, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <Discover
1E 000E .WORD CLUMBX$K_ST_NEWSYS
0C 000F .BYTE $SSXX
0C 0010 .BYTE $SSXX
0C 0011 .BYTE $SSYY ! $SSXX ; Cluster-wide OPCOM broadcast flag
0002 0023 .ASCIC @Discovered system@ ; OPCOM message flags
0002 0023 144 ACCPT_MSG:: CNX_MSG_ST_CNX, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <Establish
1E 0025 .WORD CLUMBX$K_ST_CNX
0C 0026 .BYTE $SSXX
0C 0027 .BYTE $SSXX
0C 0028 .BYTE $SSYY ! $SSXX ; Cluster-wide OPCOM broadcast flag
0003 0049 .ASCIC @Established connection to system@ ; OPCOM message flags
0003 0049 145 CNCT_MSG:: CNX_MSG_ST_RECNX, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <Re-establish
1E 004B .WORD CLUMBX$K_ST_RECNX
0C 004C .BYTE $SSXX
0C 004D .BYTE $SSXX
0C 004E .BYTE $SSYY ! $SSXX ; Cluster-wide OPCOM broadcast flag
0004 0072 .ASCIC @Re-established connection to system@ ; OPCOM message flags
0004 0072 146 REACCPT_MSG:: CNX_MSG_ST_LOSTCNX, <NONMEMBER, NOQUORUM, QUORUM>, , <MEMBER>, <Lost
1E 0074 .WORD CLUMBX$K_ST_LOSTCNX
0C 0075 .BYTE $SSXX
0C 0076 .BYTE $SSXX
0C 0077 .BYTE $SSYY ! $SSXX ; Cluster-wide OPCOM broadcast flag
0C 0078 .ASCIC @Lost connection to system@ ; OPCOM message flags

```

63 65 6E 6E 6F 63 20 74 73 6F 4C 00* 0077
 74 73 79 73 20 6F 74 20 6E 6F 69 74 0083
 6D 65 008F
 19 0077
 0091
 0005 0091
 1E 0093
 0C 0094
 0C 0095
 6C 20 74 75 6F 2D 64 65 6D 69 54 00* 0096
 69 74 63 65 6E 6E 6F 63 20 74 73 6F 00A2
 6D 65 74 73 79 73 20 6F 74 20 6E 6F 00AE
 23 0096
 00BA
 0000 00BA
 1E 00BC
 00 00BD
 00 00BE
 53 43 20 67 6E 69 74 65 6C 65 44 00* 00BF
 6D 65 74 73 79 73 20 72 6F 66 20 42
 17 00BF
 00D7
 0006 00D7
 1E 00D9
 00 00DA
 0E 00DB
 66 20 67 6E 69 73 6F 70 6F 72 50 00* 00DC
 20 66 6F 20 6E 6F 69 74 61 6D 72 6F 00E8
 72 65 74 73 75 6C 63 58 41 56 20 61
 23 00F4
 0100
 0000 0100
 1E 0102
 00 0103
 00 0104
 58 41 56 20 67 6E 69 64 6E 65 53 00* 0105
 62 6D 65 6D 20 72 65 74 73 75 6C 63 0111
 65 75 71 65 72 20 70 69 68 73 72 65 011D
 6D 65 74 73 79 73 20 6F 74 20 74 73
 2F 0129
 0135
 0009 0135
 1E 0137
 0E 0138
 0E 0139
 41 56 20 64 65 76 69 65 63 65 52 00* 013A
 6D 65 6D 20 72 65 74 73 75 6C 63 58 0146
 75 71 65 72 20 70 69 68 73 72 65 62 0152
 73 79 73 20 6D 6F 72 66 20 74 73 65 015E
 6D 65 74 32 016A
 016D
 0008 016D
 1E 016F
 0E 0170
 0E 0171
 72 20 67 6E 69 73 6F 70 6F 72 50 00* 0172

.ASCIC @Lost connection to system@

149 FAILIO_MSG:: CNX_MSG ST_TIMCNX, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <Timed-0
 .WORD CLUMBXSK_ST_TIMCNX
 .BYTE \$SSXX
 .BYTE \$SSXX
 .BYTE \$SSYY ! \$SSXX : Cluster-wide OPCOM broadcast flag
 .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 .ASCIC @Timed-out lost connection to system@

150 DEAD_MSG:: CNX_MSG , <NONMEMBER,NOQUORUM,QUORUM>, , , <Deleting CSB for system>
 .WORD 0
 .BYTE \$SSXX
 .BYTE \$SSXX
 .BYTE \$SSYY ! \$SSXX : Cluster-wide OPCOM broadcast flag
 .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 .ASCIC @Deleting CSB for system@

151 TRYFORM_MSG:: CNX_MSG ST_INIFORM, <ALWAYS>, <ALWAYS>, , <Proposing formation of a
 .WORD CLUMBXSK_ST_INIFORM
 .BYTE \$SSXX
 .BYTE \$SSXX
 .BYTE \$SSYY ! \$SSXX : Cluster-wide OPCOM broadcast flag
 .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 .ASCIC @Proposing formation of a VAXcluster@

152 REQJOIN_MSG:: CNX_MSG , <ALWAYS>, , , <Sending VAXcluster membership request to sy
 .WORD 0
 .BYTE \$SSXX
 .BYTE \$SSXX
 .BYTE \$SSYY ! \$SSXX : Cluster-wide OPCOM broadcast flag
 .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 .ASCIC @Sending VAXcluster membership request to system@

153 MEMREQ_MSG:: CNX_MSG ST_MEMREQ, <NONMEMBER,NOQUORUM,QUORUM>, , <ALWAYS>, <Receive
 .WORD CLUMBXSK_ST_MEMREQ
 .BYTE \$SSXX
 .BYTE \$SSXX
 .BYTE \$SSYY ! \$SSXX : Cluster-wide OPCOM broadcast flag
 .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 .ASCIC @Received VAXcluster membership request from system@

154 RECONFIG_MSG:: CNX_MSG ST_INIRECNFIG, <NONMEMBER,NOQUORUM,QUORUM>, , <ALWAYS>, <Pro
 .WORD CLUMBXSK_ST_INIRECNFIG
 .BYTE \$SSXX
 .BYTE \$SSXX
 .BYTE \$SSYY ! \$SSXX : Cluster-wide OPCOM broadcast flag
 .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 .ASCIC @Proposing reconfiguration of the VAXcluster@

69 74 61 72 75 67 69 66 6E 6F 63 65 017E
 41 56 20 65 68 74 20 66 6F 20 6E 6F 018A
 72 65 74 73 75 6C 63 58 0196
 2B 0172
 019E
 019E 155 QUORUM_MSG:: CNX_MSG ST_QUORUM, <NONMEMBER,NOQUORUM,QUORUM>, , <ALWAYS>, -
 001C 019E <Proposing modification of quorum or quorum disk membership>
 1E 01A0 .WORD CLUMBX\$K_ST_QUORUM
 0E 01A1 .BYTE \$SSXX
 0E 01A2 .BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
 0E 01A2 .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 6D 20 67 6E 69 73 6F 70 6F 72 50 00 01A3 @Proposing modification of quorum or quorum disk membership@
 20 6E 6F 69 74 61 63 69 66 69 64 6F 01AF
 72 6F 20 6D 75 72 6F 75 71 20 66 6F 01BB
 6B 73 69 64 20 6D 75 72 6F 75 71 20 01C7
 70 69 68 73 72 65 62 6D 65 6D 20 01D3
 3A 01A3
 01DE
 0007 01DE 157 JOIN_MSG:: CNX_MSG ST_INIADD, <NONMEMBER,NOQUORUM,QUORUM>, , <ALWAYS>, <Proposi
 1E 01E0 .WORD CLUMBX\$K_ST_INIADD
 0E 01E1 .BYTE \$SSXX
 0E 01E2 .BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
 0E 01E2 .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 61 20 67 6E 69 73 6F 70 6F 72 50 00 01E3 @Proposing addition of system@
 73 20 66 6F 20 6E 6F 69 74 69 64 64 01EF
 6D 65 74 73 79 01FB
 1C 01E3
 0200
 000A 0200 158 UNLOCK_MSG:: CNX_MSG ST_ABORT, <NONMEMBER,NOQUORUM,QUORUM>, , <ALWAYS>, <Aborti
 1E 0202 .WORD CLUMBX\$K_ST_ABORT
 0E 0203 .BYTE \$SSXX
 0E 0204 .BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
 0E 0204 .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 41 56 20 67 6E 69 74 72 6F 62 41 00 0205 @Aborting VAXcluster state transitions@
 61 74 73 20 72 65 74 73 75 6C 63 58 0211
 6F 69 74 69 73 6E 61 72 74 20 65 74 021D
 6E 0229
 24 0205
 022A
 001B 022A 159 COMPLETE_MSG:: CNX_MSG ST_COMPLETE, <NONMEMBER,NOQUORUM,QUORUM>, , <ALWAYS>, <Compl
 1E 022C .WORD CLUMBX\$K_ST_COMPLETE
 0E 022D .BYTE \$SSXX
 0E 022E .BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
 0E 022E .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 20 67 6E 69 74 65 6C 70 6D 6F 43 00 022F @Completing VAXcluster state transitions@
 73 20 72 65 74 73 75 6C 63 58 41 56 023B
 74 69 73 6E 61 72 74 20 65 74 61 74 0247
 6E 6F 69 0253
 26 022F
 0256
 000F 0256 160 FAILOVER_MSG:: CNX_MSG ST_DROPNODE, <NONMEMBER,NOQUORUM,QUORUM>, , <Remov
 1E 0258 .WORD CLUMBX\$K_ST_DROPNODE
 00 0259 .BYTE \$SSXX
 0E 025A .BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
 0E 025A .BYTE \$SSYY ! \$SSXX : OPCOM message flags
 6F 72 66 20 64 65 76 6F 6D 65 52 00 025B @Removed from VAXcluster system@
 72 65 74 73 75 6C 63 58 41 56 20 6D 0267
 6D 65 74 73 79 73 20 0273
 1E 025B
 027A
 000C 027A 161 ADDNODE_MSG:: CNX_MSG ST_ADD, <NONMEMBER,NOQUORUM,QUORUM>, , <ALWAYS>, <Now a VAXC
 1E 027C .WORD CLUMBX\$K_ST_ADD
 .BYTE \$SSXX

OE 027D
OE 027E
OE 027F
OE 028B
OE 0297
21 027F
02A1
0000 02A1
10 02A3
00 02A4
00 02A5
00 02A6
02B2
6D 02BE
18 02A6
02BF
0000 02BF
10 02C1
00 02C2
00 02C3
00 02C4
02D0
6D 02DC
1B 02C4
02E0
0010 02E0
1E 02E2
OE 02E3
OE 02E4
02E5
02F1
02FD
0309
2F 02E5
0315
0315
0019 0315
1E 0317
00 0318
OE 0319
74 73 6F 6C 20 6D 75 72 6F 75 51 00 031A
61 20 67 6E 69 6B 63 6F 6C 62 20 2C 0326
79 74 69 76 69 74 63 0332
1E 031A
0339
0339
0011 0339
1E 033B
00 033C
OE 033D
033E
61 67 65 72 20 6D 75 72 6F 75 51 00 034A
69 6D 75 73 65 72 20 2C 64 65 6E 69 034A
79 74 69 76 69 74 63 61 20 67 6E 0356
22 033E
0361
0013 0361
1E 0363

.BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX : OPCOM message flags
.ASCIC @Now a VAXcluster member -- system@
162 SNDSTS_MSG:: CNX_MSG . . . , <Sending status to system>
.WORD 0
.BYTE \$SSXX
.BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX : OPCOM message flags
.ASCIC @Sending status to system@
163 RCVSTS_MSG:: CNX_MSG . . . , <Received status from system>
.WORD 0
.BYTE \$SSXX
.BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX : OPCOM message flags
.ASCIC @Received status from system@
164 FORCLUS_MSG:: CNX_MSG ST_FORNCLUS, <NONMEMBER,NOQUORUM,QUORUM>, , <ALWAYS>, <Detec
.WORD CLUMBXSK_ST_FORNCLUS
.BYTE \$SSXX
.BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX : OPCOM message flags
.ASCIC @Detected member of another VAXcluster -- system@
165 LOSEQUORUM_MSG:: CNX_MSG ST_NOQUORUM, <ALWAYS>, <ALWAYS>, , <Quorum lost, blocking ac
166 .WORD CLUMBXSK_ST_NOQUORUM
.BYTE \$SSXX
.BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX : OPCOM message flags
.ASCIC @Quorum lost, blocking activity@
167 GAINQUORUM_MSG:: CNX_MSG ST_INQUORUM, <ALWAYS>, <ALWAYS>, , <Quorum regained, resumin
168 .WORD CLUMBXSK_ST_INQUORUM
.BYTE \$SSXX
.BYTE \$SSXX : Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX : OPCOM message flags
.ASCIC @Quorum regained, resuming activity@
169 QDCON_MSG:: CNX_MSG ST_GAINDISK, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <Estab
.WORD CLUMBXSK_ST_GAINDISK
.BYTE \$SSXX

64 65 68 73 69 6C 62 61 74 73 45 00 0C 0364
6F 69 74 63 65 6E 6F 63 22 20 00 0C 0365
20 60 75 72 6F 75 71 20 6F 74 20 22 00 0C 0366
6B 73 69 64 20 6D 75 72 6F 00 0C 0367
27 00 0C 0368
0012 038E
1E 0390
0C 0391
0C 0392
65 6E 6E 6F 63 22 20 74 73 6F 4C 00 0393
75 71 20 6F 74 20 22 6E 6F 69 74 63 039F
6B 73 69 64 20 6D 75 72 6F 03AB
20 0393
0014 0384
1E 0386
0C 0387
0C 0388
69 64 61 65 72 20 72 6F 72 72 45 00 0389
69 64 20 6D 75 72 6F 75 71 20 67 6E 03C5
6B 73 03D1
19 03B9
0015 03D3
1E 03D5
0C 03D6
0C 03D7
69 74 69 72 77 20 72 6F 72 72 45 00 03D8
69 64 20 6D 75 72 6F 75 71 20 67 6E 03E4
6B 73 03F0
19 03D8
0015 03F2
1E 03F4
0C 03F5
0C 03F6
68 73 69 64 20 6D 75 72 6F 75 51 00 03F7
65 68 63 6F 6C 20 65 74 69 72 77 20 0403
64 040F
18 03F7
0016 0410
1E 0412
0C 0413
0C 0414
69 6C 61 76 6E 69 20 64 61 65 52 00 0415
20 6D 6F 72 66 20 61 74 61 64 20 64 0421
6B 73 69 64 20 6D 75 72 6F 75 71 0420
22 0415
001A 0438
1E 043A
0E 043B
0E 043C

.BYTE \$SSXX ; Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX ; OPCOM message flags
.ASCIC &Established "connection" to quorum disk&

170 QDDISCON_MSG:: CNX MSG ST LOSTDISK, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <Lost

.WORD CLUMBX\$K_ST_LOSTDISK
.BYTE \$SSXX
.BYTE \$SSXX ; Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX ; OPCOM message flags
.ASCIC &Lost "connection" to quorum disk&

171 QDRERROR_MSG:: CNX MSG ST DISKRDERR, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <Error

.WORD CLUMBX\$K_ST_DISKRDERR
.BYTE \$SSXX
.BYTE \$SSXX ; Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX ; OPCOM message flags
.ASCIC &Error reading quorum disk&

172 QDWRERROR_MSG:: CNX MSG ST DISKWRERR, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <Error

.WORD CLUMBX\$K_ST_DISKWRERR
.BYTE \$SSXX
.BYTE \$SSXX ; Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX ; OPCOM message flags
.ASCIC &Error writing quorum disk&

173 QDWRLERROR_MSG:: CNX MSG ST_DISKWRERR, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <Quo

.WORD CLUMBX\$K_ST_DISKWRERR
.BYTE \$SSXX
.BYTE \$SSXX ; Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX ; OPCOM message flags
.ASCIC &quorum disk write-locked&

174 QDINVDAT_MSG:: CNX MSG ST_DISKINVDAT, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <Rea

.WORD CLUMBX\$K_ST_DISKINVDAT
.BYTE \$SSXX
.BYTE \$SSXX ; Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX ; OPCOM message flags
.ASCIC &Read invalid data from quorum disk&

175 QDFORCLUS_MSG:: CNX MSG ST_FORNDISK, <NONMEMBER,NOQUORUM,QUORUM>, , <ALWAYS>, <Detec

.WORD CLUMBX\$K_ST_FORNDISK
.BYTE \$SSXX
.BYTE \$SSXX ; Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX ; OPCOM message flags

```

6E 61 20 64 65 74 63 65 74 65 44 00' 043D
75 6C 63 58 41 56 20 72 65 68 74 6F 0449
65 68 74 20 61 69 76 20 72 65 74 73 0455
6B 73 69 64 20 60 75 72 6F 75 71 20 0461
                                2F 043D
                                0460
0017 046D
                                1E 046F
                                0C 0470
                                0C 0471
49 20 74 75 6F 2D 64 65 6D 69 54 00' 0472
6E 6F 69 74 61 72 65 70 6F 20 4F 2F 047E
64 20 6D 75 72 6F 75 71 20 6F 74 20 048A
                                6B 73 69 0496
                                26 0472
                                0499
0499 177 : LOSTMSG_MSG:: CNX_MSG ST_LOSTMSG, <ALWAYS>, , <Lost VAXcluster message>
0499 178
0499 179 :*****NOTE: The following assumptions are in effect for this entire module.*****
0499 180
0499 181 :*****NOTE: The following assumptions are in effect for this entire module.*****
0499 182
0499 183 :*****NOTE: The following assumptions are in effect for this entire module.*****
0499 184
0499 185     ASSUME IPL$_SYNCH EQ IPL$_SCS
0499 186     ASSUME IPL$_SYNCH EQ IPL$_TIMER
0499 187
00000000 188     .PSECT $$S100, LONG           ; PSECT for code
0000 189
0000 190     .DEFAULT      DISPLACEMENT, WORD

```

.ASCIC @Detected another VAXcluster via the quorum disk@

176 QDTIMOUT_MSG:: CNX_MSG ST_DISKTIMEOUT, <NONMEMBER,NOQUORUM,QUORUM>, , <MEMBER>, <TI
.WORD CLUMBXSK_ST_DISKTIMEOUT
.BYTE \$SSXX
.BYTE \$SSXX ; Cluster-wide OPCOM broadcast flag
.BYTE \$SSYY ! \$SSXX ; OPCOM message flags
.ASCIC @Timed-out I/O operation to quorum disk@

177 : LOSTMSG_MSG:: CNX_MSG ST_LOSTMSG, <ALWAYS>, , <Lost VAXcluster message>

178

179 :*****NOTE: The following assumptions are in effect for this entire module.*****

180

181 :*****NOTE: The following assumptions are in effect for this entire module.*****

182

183 :*****NOTE: The following assumptions are in effect for this entire module.*****

184

185 ASSUME IPL\$_SYNCH EQ IPL\$_SCS

186 ASSUME IPL\$_SYNCH EQ IPL\$_TIMER

187

188 .PSECT \$\$S100, LONG ; PSECT for code

189

190 .DEFAULT DISPLACEMENT, WORD

0000 192 .SBTTL CNXS\$CONFIG_CHANGE - Log configuration change
 0000 193 ++
 0000 194 FUNCTIONAL DESCRIPTION:
 0000 195 This routine records cluster configuration changes.
 0000 196 Currently it simply broadcasts a message to OPA0.
 0000 197
 0000 198
 0000 199 INPUT PARAMETERS:
 0000 200 R0 Address of ASCII message string
 0000 201 R5 Address of CSB or 0
 0000 202
 0000 203
 0000 204 OUTPUT PARAMETERS:
 0000 205
 0000 206
 0000 207
 0000 208
 0000 209
 0000 210
 0000 211
 0000 212 SIDE EFFECTS:
 0000 213 ALL registers (other than R0) are preserved.
 0000 214
 0000 215
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 0000 242
 0000 243
 0000 244
 0000 245
 0000 246
 0000 247
 0000 248
 03FE 8F BB 0000 214 PUSHR #^M<R1,R2,R3,R4,R5,R6,R7,R8,R9> ; Save registers
 58 50 D0 0004 215 MOVL R0,R8 ; Message control block address
 59 55 D0 0007 216 MOVL R5,R9 ; Remote node CSB address
 54 00000000 GF D0 000A 217 MOVL G^CLUSGL CLUB,R4 ; Address of CLUB
 57 D4 0011 218 CLRL R7 ; Status flags mask
 04 1C A4 00 E0 0013 219 BBS #CLUB\$V CLUSTER, - ; Branch if cluster member
 0C 57 01 E3 0018 220 CLUB\$L FLAGS(R4),10\$; CLUB\$L FLAGS(R4),10\$; Set non-member flag and branch
 04 1C A4 1C E0 001C 221 BBCS #FLG_V_NONMEMBER,R7,30\$; Set non-member flag and branch
 0021 222
 03 57 03 E3 0021 223 10\$: BBS #CLUB\$V QUORUM, - ; Branch if quorum is present
 0025 224 CLUB\$L FLAGS(R4),20\$; CLUB\$L FLAGS(R4),20\$; Set quorum absent flag and branch
 04 A8 57 93 0028 225 BBCS #FLG_V_NOQUORUM,R7,30\$; Set quorum absent flag and branch
 03 12 002C 226
 0095 31 002E 227 20\$: BISL2 #FLG_M QUORUM,R7 ; Set quorum present flag
 04 A8 57 93 0028 228 30\$: BITB R7 MB_B_LCL(R8) ; Send OPCOM a message?
 03 12 002C 229 BNEQ 40\$; Branch to send OPCOM a message
 0095 31 002E 230 BRW 100\$; Skip message to OPCOM
 5E 00000048 8F C2 0031 231
 04 AE 0048 8F 00 6E 00 2C 003A 232 40\$: SUBL2 #<CLUMBX\$K LENGTH+3>8^C3,SP ; Allocate mailbox message buffer
 54 DD 0038 233 PUSHL R4 ; Save CLUB address
 0043 234 MOVC5 #0,(SP),#0, - ; Zero allocated space
 6E 0059 8F BA 0043 235 POPR #^M<R4> ; Restore CLUB address
 0045 236 MOVW JMSG8 CLUMBX, - ; Message ID
 02 AE 68 B0 004A 237 CLUMBX\$W MSGTYPE(SP)
 04 AE 01 90 004E 238 MOVW MB_W CODE(R8), - ; Message subtype
 0052 239 CLUMBX\$W SUBTYPE(SP)
 03 A8 57 93 0052 240 MOVB #CLUMBX\$R DS VERSION, - ; Message structure version
 04 13 0056 241 CLUMBX\$B DS VERSION(SP)
 05 AE 01 90 0058 242 BITB R7 MB_B_CLSTR8) ; Broadcast to cluster?
 06 AE 48 8F 9B 005C 243 BEQL 50\$; Branch if no
 0061 244 MOVB #CLUMBX\$M BRDCST, - ; Set broadcast bit
 0061 245 CLUMBX\$B FLAGS(SP)
 0061 246 MOVZBW #CLUMBX\$R LENGTH, - ; Message length
 0061 247 CLUMBX\$W LENGTH(SP)

05 1C A4 10 A4 D0 0061 249
05 1C A4 00 E1 0065 250
08 AE 4C A3 D0 006A 251
08 AE 4C A3 D0 006F 252
0C AE 56 68 A3 D0 006F 253
0C AE 18 A6 06 28 0073 254 60S:
14 AE 44 A6 10 28 0079 255
14 AE 44 A6 10 28 0079 256
14 AE 44 A6 10 28 0079 257
14 AE 44 A6 10 28 0079 258
14 AE 44 A6 10 28 007F 259
14 AE 44 A6 10 28 007F 260
05 60 A9 01 1A 13 0081 261
05 60 A9 01 E1 0083 262
24 AE 4C A9 D0 0088 263
24 AE 4C A9 D0 0088 264
28 AE 56 68 A9 D0 008D 265 70S:
28 AE 18 A6 06 28 0091 266
30 AE 44 A6 10 28 0097 267
30 AE 44 A6 10 28 0097 268
30 AE 44 A6 10 28 0097 269
30 AE 44 A6 10 28 0097 270
40 AE 00000000'GF 7D 009D 271
53 06 AE 3C 00A5 272
54 6E 9E 00A9 273 80S:
55 00000000'GF 9E 00AC 274
55 00000000'GF 9E 00B3 275
55 00000000'GF 16 00B3 276
55 03 50 E8 00B9 277
55 57 10 C8 00BC 278
55 00000048 8F C0 00BF 279
55 00000048 8F C0 00C6 280
55 02 A8 57 93 00C6 281
55 51 05 A8 9A 00CC 282
55 51 21 C0 00D0 283
55 51 03 CA 00D3 284
55 56 5E D0 00D6 285
55 5E 51 C2 00D9 286
6E 0000'CF OC 28 00DC 287 100S:
63 51 05 A8 9A 00E2 288
63 06 A8 51 28 00E6 289
63 59 D5 00EB 290
63 12 13 00ED 291
55 83 20 90 00EF 292
55 68 A9 D0 00F2 293
55 44 A5 9E 00F6 294
55 56 85 9A 00FA 295
55 56 85 9A 00FA 296
55 56 85 9A 00FA 297
55 56 85 9A 00FA 298
55 56 85 9A 00FA 299
55 56 85 9A 00FA 300
55 56 85 9A 00FA 301
55 56 85 9A 00FA 302
55 56 85 9A 00FA 303
55 56 85 9A 00FA 304
55 56 85 9A 00FA 305

MOVL CLUBSL LOCAL (SB(R4)),R3 ; Local CSB address
BBC #CLUB\$V CLUSTER - ; Branch if not a cluster member
MOVL CSBSL FLAGS(R4),60\$;
CLUMBSL CSID(R3), - ; Store local node CSID
CSBSL SBTR3), R6 ; Address of local node system block
#CLUMBX\$S SYSTEMID_L, - ; Store local system id
SB\$B SYSTEMID(R6), -
CLUMBXSB SYSTEMID_L(SP)
#CLUMBX\$S NODENAME_L, - ; Store local system name
SB\$T NODENAME(R6), -
CLUMBXST_NODENAME_L(SP)
TSTL R9 ; Remote node specified?
BEQL 80S ; Branch if not and skip remote node data
BBC #CSBSV MEMBER, - ; Branch if not a cluster member
CSBSL STATUS(R9),70\$;
MOVL CSBSL-CSID(R9), - ; Store remote node CSID
CLUMBSL CSID R(SP)
CSBSL SBTR9), R6 ; Address of remote node system block
#CLUMBX\$S SYSTEMID_R, - ; Store remote system id
SB\$B SYSTEMID(R6), -
CLUMBXSB SYSTEMID_R(SP)
#CLUMBX\$S NODENAME_R, - ; Store remote system name
SB\$T NODENAME(R6), -
CLUMBXST_NODENAME_R(SP)
MOVQ G*EXESGQ-SYSTIME - ; Store current time
CLUMBXSQ-TIME(SP)
MOVZWL CLUMBXSW_LENGTH(SP),R3 ; Message size
MOVAB (SP),R4 ; Message address
MOVAB G*SY\$GL_OPRMBX,R5 ; OPCOM mailbox UCB address
00000000'GF 16 00B3 280 : R3 is message length
00000000'GF 16 00B3 281 : R4 is message address
00000000'GF 16 00B3 282 : R5 is mailbox UCB address
00000000'GF 16 00B3 283 :
JSB G*EXESWRMAILBOX ; Send message to OPCOM
BLBS R0,90\$; Branch on success
BISL2 #FLG_M_ERROR,R7 ; Set OPCOM message error flag
ADDL2 #<CLUMBXSK_LENGTH+3>E^C3,SP ; Deallocate mailbox message buffer
02 A8 57 93 00C6 284
02 A8 4F 13 00CA 285
51 05 A8 9A 00CC 286
51 21 C0 00D0 287 90S:
51 03 CA 00D3 288
56 5E D0 00D6 289
55 51 C2 00D9 290
55 56 5E D0 00D6 291
55 51 C2 00D9 292
55 56 5E D0 00D6 293
55 51 C2 00D9 294
55 56 5E D0 00D6 295
55 51 C2 00D9 296
55 56 5E D0 00D6 297
55 51 05 A8 9A 00E2 298
55 06 A8 51 28 00E6 299
55 59 D5 00EB 300
55 12 13 00ED 301
55 83 20 90 00EF 302
55 68 A9 D0 00F2 303
55 44 A5 9E 00F6 304
55 56 85 9A 00FA 305
BITB R7,MB_B_BRD(R8) ; Check for OPA0 broadcast
BEQL 120S ; Branch if no OPA0 broadcast
MOVZBL MB_T MSG(R8),R1 ; Get length of message
ADDL2 #PREFIX_SIZ+SB\$S_NODENAME+2+3,R1 ; Add prefix, space+CR and
BICL2 #3,R1 ; round to even number of longwords
MOVL SP,R6 ; Address to restore SP
SUBL2 R1,SP ; Allocate message construction buffer
MOVCS #PREFIX_SIZ,W^PREFIX, - ; Copy prefix into message buffer
(SP)
MOVZBL MB_T MSG(R8),R1 ; Initial message text size
MOVCS R1,MB_T_MSG+1(R8),(R3) ; Copy message text to stack
TSTL R9 ; Was CSB address specified?
BEQL 110S ; Branch if no CSB
MOVB #^A/ / (R3)+ ; Store a space
MOVL CSBSL SB(R9),R5 ; System Block address
MOVAB SB\$T NODENAME(R5),R5 ; Address of counted node name
MOVZBL (R5),R4 ; Length of node name

63 65 54 28 00FD 306 110\$: MOVC3 R4 (R5), (R3) ; Fill in node name
85 0D 90 0101 307 MOVB #CA (R3) ; Insert and count final carriage return
22 6E 9F 0104 308 MOVAB (SP), R2 ; Message address
51 53 52 C3 0107 309 SUBL3 R2, R3, R1 ; Message length
55 00000000'GF DE 010B 310 MOVAL G^OPA\$UCB0, R5 ; Get address of OPA0 UCB
0112 311 :
0112 312 : R1 is message length
0112 313 : R2 is message address
0112 314 : R5 is OPA0 UCB address
00000000'GF 16 0112 315 JSB G^IOC\$BROADCAST ; Broadcast it
5E 56 D0 0118 316 MOVL R6, SP ; Deallocate message text buffer
03FE 8F BA 0118 317 120\$: POPR #^M<R1, R2, R3, R4, R5, R6, R7, R8, R9> ; Restore registers
05 011F 318 RSB

0120 321 .SBTTL SEND_JBCMSG - Send message to Job Controller

0120 322

0120 323 :++

0120 324 FUNCTIONAL DESCRIPTION:

0120 325

0120 326 This routine sends a message to the Job controller when a system

0120 327 is removed from the cluster.

0120 328

0120 329 INPUT PARAMETERS:

0120 330

0120 331 R5 Address of CSB

0120 332

0120 333 OUTPUT PARAMETERS:

0120 334

0120 335

0120 336 None

0120 337

0120 338 SIDE EFFECTS:

0120 339

0120 340 All registers (other than R0) are preserved.

0120 341

00000018 342 JBCMSGSIZE= 2+SBSS_SYSTEMID+SBSS_NODENAME : Length of job controller me

007E 8F BB 0120 343 SEND_JBCMSG::

5E 18 C2 0120 344 PUSHR #^M<R1,R2,R3,R4,R5,R6> : Save registers

53 6E 9E 0124 345 SUBL2 #<JBCMSGSIZE+3>8^C3,SP : Allocate message buffer

83 09 B0 0127 346 MOVAB (SP), R3 : Message buffer address

56 68 A5 D0 012A 347 MOVW #MSG\$ SMBDON,(R3)+ : Message type

63 18 A6 06 28 0131 348 MOVL CSBSL_SB(R5), R6 : Address of System Block

63 44 A6 10 28 0136 349 MOV C3 #SBSS_SYSTEMID, - : Copy system ID into message

53 18 D0 0138 350 SBSB SYSTEMID(R6), (R3)

54 6E 9E 013B 351 MOV C3 #SBSS_NODENAME, - : Copy node name --

55 00000000'GF 9E 0141 352 SBST NODENAME(R6), (R3) : R3 set by previous MOVC3

00000000'GF 16 0148 353 MOVL #JBCMSGSIZE,R3 : Set size of message

5E 18 C0 014E 354 MOVAB (SP), R4 : Set address of message

007E 8F BA 0151 355 MOVAB G^SY\$SGL JOBCTLMB,R5 : Set addr. of Job controller's mailbox

05 0155 356 JSB G^EXESWRTHAILBOX : Write it to mailbox (ignore errors)

0156 357 ADDL2 #<JBCMSGSIZE+3>8^C3,SP : Restore stack

0156 358 POPR #^M<R1,R2,R3,R4,R5,R6> : Restore all registers

0156 359 RSB : Return

0156 360

0156 361

0156 362 .END

SSSXX	= 0000000C		CR	= 0000000D
SSSYY	= 00000000		CSB\$L_CSID	= 0000004C
ACCPMSG	= 00000023	RG 02	CSB\$L_SB	= 00000068
ADDNODE_MSG	= 0000007A	RG 02	CSB\$L_STATUS	= 00000060
BELL	= 00000007		CSB\$V_MEMBER	= 00000001
CLU\$GL_CLUB	= *****	X 03	CSB_MSG	0000000C RG 02
CLUBSL_FLAGS	= 00000001C		DEAD_MSG	0000000BA RG 02
CLUBSL_LOCAL_CSB	= 000000010		EXE\$GQ_SYS TIME	***** X 03
CLUBSV_CLUSTER	= 000000000		EXE\$WRMAILBOX	***** X 03
CLUBSV_QUORUM	= 00000001C		FAILIO_MSG	000000091 RG 02
CLUMBXB_DS_VERSION	= 00000004		FAILOVER_MSG	00000256 RG 02
CLUMBXB_FLAGS	= 00000005		FLG_M_ALWAYS	= 0000000E
CLUMBXB\$SYSTEMID_L	= 0000000C		FLG_M_ERROR	= 00000010
CLUMBXB\$SYSTEMID_R	= 00000028		FLG_M_MEMBER	= 0000000C
CLUMBXSK_DS_VERSION	= 00000001		FLG_M_NONMEMBER	= 00000002
CLUMBXSK_LENGTH	= 00000048		FLG_M_NOQUORUM	= 00000008
CLUMBXSK_ST_ABORT	= 0000000A		FLG_M_QUORUM	= 00000004
CLUMBXSK_ST_ADD	= 0000000C		FLG_V_ERROR	= 00000004
CLUMBXSK_ST_CNX	= 00000002		FLG_V_NONMEMBER	= 00000001
CLUMBXSK_ST_COMPLETE	= 0000001B		FLG_V_NOQUORUM	= 00000003
CLUMBXSK_ST_DISKINVDAT	= 00000016		FLG_V_QUORUM	= 00000002
CLUMBXSK_ST_DISKRERR	= 00000014		FORCLOS_MSG	000002E0 RG 02
CLUMBXSK_ST_DISKTIMEOUT	= 00000017		GAINQUORUM_MSG	00000339 RG 02
CLUMBXSK_ST_DISKWRERR	= 00000015		IOCBROADCAST	***** X 03
CLUMBXSK_ST_DROPNODE	= 0000000F		IPL\$_SCS	= 00000008
CLUMBXSK_ST_FORNCLUS	= 00000010		IPL\$_SYNCH	= 00000008
CLUMBXSK_ST_FORNDISK	= 0000001A		IPL\$_TIMER	= 00000008
CLUMBXSK_ST_GAINDISK	= 00000013		JBCMSGSI	= 00000018
CLUMBXSK_ST_INIADD	= 00000007		JOIN_MSG	000001DE RG 02
CLUMBXSK_ST_INIFORM	= 00000006		LF	= 0000000A
CLUMBXSK_ST_INIRECONFIG	= 00000008		LOSEQUORUM_MSG	00000315 RG 02
CLUMBXSK_ST_INQUORUM	= 00000011		MB_B_BRD	= 00000002
CLUMBXSK_ST_LOSTCNX	= 00000004		MB_B_CLS	= 00000003
CLUMBXSK_ST_LOSTDISK	= 00000012		MB_B_LCL	= 00000004
CLUMBXSK_ST_MEMREQ	= 00000009		MB_T_MSG	= 00000005
CLUMBXSK_ST_NEWSYS	= 00000001		MB_W_CODE	= 00000000
CLUMBXSK_ST_NOQUORUM	= 00000019		MEMREQ_MSG	00000135 RG 02
CLUMBXSK_ST_QUORUM	= 0000001C		MSG\$_CLUMBX	= 00000059
CLUMBXSK_ST_RECNX	= 00000003		MSG\$_SMBDON	= 00000009
CLUMBXSK_ST_TIMCNX	= 00000005		OPASOCBO	***** X 03
CLUMBXSL_CSID_L	= 00000008		PREFIX	00000000 R 02
CLUMBXSL_CSID_R	= 00000024		PREFIX_SIZ	= 0000000C
CLUMBXSM_BRDCST	= 00000001		QDCON_MSG	00000361 RG 02
CLUMBXSO_TIME	= 00000040		QDDISCON_MSG	0000038E RG 02
CLUMBXSS_NODENAME_L	= 00000010		QDFORCLUS_MSG	00000438 RG 02
CLUMBXSS_NODENAME_R	= 00000010		QDINVDAT_MSG	00000410 RG 02
CLUMBXSS_SYSTEMID_L	= 00000006		QDRDERROR_MSG	000003B4 RG 02
CLUMBXSS_SYSTEMID_R	= 00000006		QDTIMOUT_MSG	0000046D RG 02
CLUMBXST_NODENAME_L	= 00000014		QDWRError_MSG	000003D3 RG 02
CLUMBXST_NODENAME_R	= 00000030		QDWRLERROR_MSG	000003F2 RG 02
CLUMBXSW_LENGTH	= 00000006		QUORUM_MSG	0000019E RG 02
CLUMBXSW_MSGTYPE	= 00000000		RCVSTS_MSG	000002BF RG 02
CLUMBXSW_SUBTYPE	= 00000002		REACCPT_MSG	00000049 RG 02
CNCT_MSG	00000023	RG 02	RECNCT_MSG	00000049 RG 02
CNX\$CONFIG_CHANGE	00000000	RG 03	RECONFIG_MSG	0000016D RG 02
CNXERROR_MSG	00000072	RG 02	REQJOIN_MSG	00000100 RG 02
COMPLETE_MSG	0000022A	RG 02	SB\$B_SYSTEMID	= 00000018

SBSS_NODENAME
SBSS_SYSTEMID
SBST_NODENAME
SEND_JBCMSG
SNDSTS_MSG
SYSSGL_JOBCTLMB
SYSSGL_OPRMBX
TRYFORM_MSG
UNLOCK_MSG

= 00000010
= 00000006
= 00000044
00000120 RG 03
000002A1 RG 02
***** X 03
***** X 03
000000D7 RG 02
00000200 RG 02

+-----+
! Psect synopsis !
+-----+

PSECT name

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$ABSS	00000000 (0.)	01 (1.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
SSS060	00000499 (1177.)	02 (2.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC LONG
SSS100	00000156 (342.)	03 (3.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC LONG

+-----+
! Performance indicators !
+-----+

Phase

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.04	00:00:00.52
Command processing	108	00:00:00.44	00:00:04.47
Pass 1	273	00:00:04.61	00:00:16.86
Symbol table sort	0	00:00:00.45	00:00:02.50
Pass 2	122	00:00:01.25	00:00:03.54
Symbol table output	16	00:00:00.07	00:00:00.07
Psect synopsis output	2	00:00:00.01	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	552	00:00:06.88	00:00:27.98

The working set limit was 1500 pages.

56017 bytes (110 pages) of virtual memory were used to buffer the intermediate code.

There were 30 pages of symbol table space allocated to hold 470 non-local and 12 local symbols.

362 source lines were read in Pass 1, producing 19 object records in Pass 2.

16 pages of virtual memory were used to define 14 macros.

+-----+
! Macro library statistics !
+-----+

Macro library name

Macro library name	Macros defined
\$255\$DUA28:[SYSLOA.OBJ]CLUSTER.MLB;1	1
\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	4
\$255\$DUA28:[SYSLIB]STARLET.MLB;2	5
TOTALS (all libraries)	10

492 GETS were required to define 10 macros.

There were no errors, warnings or information messages.

CLUMESSAG
VAX-11 Macro Run Statistics

- Cluster Event Message Routines

E 7

16-SEP-1984 00:23:47 VAX/VMS Macro V04-00
5-SEP-1984 04:06:59 [SYSLOA.SRC]CLUMESSAG.MAR;1

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(4)

MACRO/LIS=LI\$S:CLUMESSAG/OBJ=OBJ\$:CLUMESSAG MSRC\$:CLUMESSAG/UPDATE=(ENH\$:CLUMESSAG)+EXECMLS/LIB+LIB\$:CLUSTER/LIB

(CN)
Tat

0392 AH-BT13A-SE
VAX/VMS V4.0

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LIS

CONMAN
LIS

ADPSUB290
LIS

CLUMESSAG
LIS